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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023

DEC5014 – MICROECONOMICS

(All sections/Groups)

5 JULY 2023

2.30 P.M – 4.30 P.M

(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 11 pages with 2 sections.
2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.
3. Please write all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.

SECTION A: MULTIPLE CHOICE QUESTIONS (40 MARKS)

1. Jonathan views milk and cereal as complimentary goods. If the price of cereal decreases, economists would expect _____.
 - A. Jonathan's demand for cereal to increase.
 - B. Jonathan's demand for cereal to decrease.
 - C. Jonathan's quantity of cereal demanded to decrease.
 - D. Jonathan's demand for milk to increase.
2. Which of the following goods is likely to have a higher PED?
 - A. Necessities.
 - B. Luxuries.
 - C. Substitute goods.
 - D. Complementary goods.
3. A coffee shop owner recently increased the price of a cup of coffee from RM2 to RM2.50. As a result, the number of cups sold per day decreased from 200 to 150. What is the PED for coffee in this case?
 - A. 0.50
 - B. 4.0
 - C. 3.55
 - D. 1.29
4. If the price of a good increases by 10% and the quantity demanded decreases by 5%, what is the PED?
 - A. 0.50
 - B. 1.50
 - C. 2.50
 - D. 3.00
5. Sun Power supplies solar panels in Malaysia. The firm noticed that when the price of oil increased by 50%, the quantity supply of solar panels increased by 10%. What is the PES for solar panels in this case?
 - A. 0.50
 - B. 0.40
 - C. 0.20
 - D. 1.00

Continued...

6. _____ is more likely to have a higher PES?
- A. Goods with easily available inputs.
 - B. Goods with scarce inputs.
 - C. Goods with higher numbers of buyer.
 - D. Goods with a larger income spent.
7. Supposed the quantity demanded of a good decrease by 20% when income increases by 50%, YED equals _____ and the good is _____.
- A. 0.8; normal good
 - B. $-|0.4|$; inferior good
 - C. 1.8; normal good
 - D. Infinity; inferior good
8. Which of the following statements **BEST** describes income elasticity of demand (YED)?
- A. YED measures the responsiveness of quantity demanded to changes in income.
 - B. YED measures the responsiveness of quantity supplied to changes in income.
 - C. YED measures the responsiveness of income to changes in quantity demanded.
 - D. YED measures the responsiveness of price to changes in income.
9. In a small economy, when the price of apples increased by 10%, the demand for oranges increased by 20%. The cross elasticity between apples and oranges is _____.
- A. 0.5
 - B. 1.0
 - C. 1.5
 - D. 2.0
10. Mr. Man sells calculator to students in MMU. He noticed that when he increased the price of a calculator by 15%, the quantity demanded decreased by 20%. What is the PED for calculators, and what would happen to his total revenue if he continued to increase the price of calculators?
- A. 0.60; Total revenue increase.
 - B. 1.33; Total revenue decrease.
 - C. 3.00; Total revenue increase.
 - D. 2.00; Total revenue decrease.

Continued...

11. A gym manager noticed that when it reduced the membership fee from RM50 to RM40, the number of members increased from 100 to 120. What is the PED for gym memberships.
- A. -0.50
 - B. -0.82
 - C. -1.50
 - D. -2.0
12. John consumes apples and oranges. The price of an apple is RM1 and the price of an orange is RM2. John has a budget of RM10. If John maximizes his utility, which of the following is true?
- A. $MU_a / P_a = MU_b / P_b$
 - B. $MU_a / P_a < MU_b / P_b$
 - C. $MU_a / P_a > MU_b / P_b$
 - D. John cannot maximize his utility with this budget.
13. Assuming that Sarah consumes only two goods, X and Y. The price of X is RM2 and the price of Y is RM4. At her current consumption level, $MU_x = 10$ and $MU_y = 8$. What should Sarah do to increase her total utility?
- A. Consume more of X and less of Y
 - B. Consume more of Y and less of X
 - C. Consume more of both X and Y
 - D. Consume less of both X and Y
14. Given the marginal utility for David's consumption of the last slice of pizza is 10, and the marginal utility of the last can of soda is 5. If the price of pizza is RM2 and the price of soda is RM1, which of the following is true?
- A. David should consume more pizza and less soda to maximize his utility.
 - B. David should consume more soda and less pizza to maximize his utility.
 - C. David should consume the same amount of pizza and soda to maximize his utility.
 - D. It is impossible to determine how David should adjust his consumption to maximize his utility.
15. With the increase of income, what will happen to a consumer budget line if his marginal utility of good X is 20 and the marginal utility of good Y is 10.
- A. It will shift outward.
 - B. It will shift inward.
 - C. It will not shift but become steeper.
 - D. It will not shift.

Continued...

16. Which of the following statements is **TRUE** about indifference curves?
- A. Indifference curves are downward-sloping and convex to the origin.
 - B. Indifference curves are upward-sloping and concave to the origin.
 - C. Indifference curves are upward-sloping and convex to the origin.
 - D. Indifference curves are downward-sloping and concave to the origin.

Question 17 until question 19 refers to table 1.

Bowling	Total Utility for bowling	Total Utility for both bowling and skating	Total Utility for skating	Skating
4	100		0	0
3	92		48	2
2	72		80	4
1	40		100	6
0	0		115	8

Table 1

The table above shows Molly's monthly allocation for her hobbies, bowling and skating. Molly is required to pay RM4 per entry to the bowling centre and RM2 per entry to the skating hall.

17. Which of the following is **TRUE**?
- A. Molly can afford to consume 5 bowling entries and 3 skating entries.
 - B. Molly will achieve consumer equilibrium when she consumes 2 bowling entries and 4 skating entries.
 - C. Molly's total utility increases as she decreases her consumption of bowling.
 - D. Molly will experience diminishing marginal utility when she decreases her consumption for both goods.
18. Calculate Molly's marginal utility per dollar when she consumes 2 bowling entries.
- A. 8
 - B. 5
 - C. 10
 - D. 2
19. Molly's budget equation is _____.
- A. $RM2Q_b + RM4Q_s = RM16$
 - B. $RM40Q_b + RM20Q_s = RM32$
 - C. $RM4Q_b + RM2Q_s = RM16$
 - D. $RM20Q_b + RM40Q_s = RM32$

Continued...

20. If Molly's budget line shifts to the right, it is most likely that Molly's _____.
A. income constant.
B. income decreased.
C. income unstable.
D. income increased.
21. Which of the following best describes the paradox of value?
A. The fact that goods with high marginal utility often have low market value, while goods with low marginal utility often have high market value.
B. The fact that goods with high marginal utility always have high market value, while goods with low marginal utility always have low market value.
C. The fact that goods with high marginal utility always have low market value, while goods with low marginal utility always have high market value.
D. The fact that goods with low marginal utility often have low market value, while goods with high marginal utility often have high market value.
22. Which of the following is a limitation of the accounting profit measure?
A. It ignores sunk cost.
B. It ignores explicit costs.
C. It ignores opportunity cost.
D. It ignores all costs.
23. Suppose a company has total revenue of RM10,000, explicit costs of RM8,000, and implicit costs of RM2,000. What is the economic profit?
A. RM2,000
B. RM10,000
C. RM8,000
D. RM0
24. Which of the following is likely to happen to ABC Corp., a small manufacturing firm that produces widgets facing an information constraint?
A. The firm will be able to increase production by investing in new technology.
B. The firm will have difficulty predicting changes in the market and may produce too much or too little.
C. The firm will be able to charge a premium price for its widgets due to the market constraint.
D. The firm will be able to increase production by hiring more workers.

Continued...

25. What is the **BEST** description of economic efficiency?
- A. Producing goods and services at the lowest possible cost.
 - B. Allocating resources in a way that maximizes the well-being of society.
 - C. Maximizing profits for businesses.
 - D. Increasing the quantity of goods and services produced.

Question 26 until question 30 refers to table 2.

Item	Amount (RM)
Amy's forgone wages	36,000
Amy's normal profit	100,000
Bank interest	3,000
Economic depreciation	10,000
Electricity	30,000
Employees' salary	150,000
Forgone interest	15,000
Raw materials	60,000
Rental machine	5,000
Total Revenue	500,000

Table 2

Table 2 above shows the opportunity cost of production for Amy's small business. Answer the following questions:

26. What is the cost of resources bought in the market for her business?
- A. RM248,000.
 - B. RM500,000.
 - C. RM250,000.
 - D. RM400,000.
27. Amy's cost of resources owned by firm for her business is _____.
- A. RM28,000.
 - B. RM50,000.
 - C. RM25,000.
 - D. RM40,000.
28. Determine the cost of resources supplied by owner for Amy.
- A. RM128,000.
 - B. RM250,000.
 - C. RM325,000.
 - D. RM136,000.

Continued...

29. What is the opportunity cost of production for her business?
- A. RM180,000
 - B. RM409,000
 - C. RM300,000
 - D. RM270,000
30. There is _____ of _____ for Amy's small business.
- A. economic profit; RM91,000.
 - B. economic loss; - RM91,000.
 - C. economic profit; RM500,000.
 - D. economic loss; - RM500,000.
31. The following is among five basic decisions a firm must make to maximize profit **EXCEPT** _____.
- A. What to produce and in what quantities
 - B. How to produce
 - C. How to cheat customers to increase price
 - D. How to market and price its products
32. A car manufacturer is experiencing high demand for their vehicles and wants to increase production. What is the likely effect on the market for steel, a key input in the production of cars?
- A. The demand for steel will decrease as the car manufacturer buys less of it.
 - B. The demand for steel will increase as the car manufacturer buys more of it.
 - C. The supply of steel will decrease as steel producers struggle to keep up with demand.
 - D. The supply of steel will increase as steel producers increase production to meet the higher demand.
33. The marginal product of labor is equal to _____.
- A. the additional labor required to produce one more unit of output.
 - B. average product when average product is at a minimum.
 - C. the additional output produced by hiring one more unit of labor.
 - D. the slope of a ray drawn from the origin to a point on the total product curve.
34. What is meant by derived demand?
- A. The demand is derived in beginning economics classes.
 - B. The demand is derived from the income and tastes of sellers.
 - C. The demand is derived from the price elasticity of demand.
 - D. The demand for a resource is derived from the demand for what it can produce.

Continued...

35. A company finds that the value of marginal product for the current level of employment is RM53 and the wage rate is RM45. Which of the following is correct?
- A. Too much labor is currently employed and the firm will lay off some workers.
 - B. The firm should shut down and produce nothing.
 - C. The firm is employing the profit-maximizing quantity of labor.
 - D. Too few workers are currently employed and the firm will hire more workers.
36. An increase in the price of the firm's output leads to a _____.
- A. movement upward along the demand for labor curve.
 - B. rightward shift of the demand for labor curve.
 - C. movement downward along the demand for labor curve.
 - D. leftward shift of the demand for labor curve.
37. Which of the following statements is **TRUE** regarding the effect of a rise in wage rate on the quantity of labor supplied?
- A. The income effect dominates the substitution effect at low wage rates, resulting in a decrease in the quantity of labor supplied.
 - B. The substitution effect dominates the income effect at low wage rates, resulting in an increase in the quantity of labor supplied.
 - C. The substitution effect and income effect have equal influence on the quantity of labor supplied at low wage rates, resulting in no change in the quantity of labor supplied.
 - D. The substitution effect dominates the income effect at high wage rates, resulting in an increase in the quantity of labor supplied.

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Question 38 until 40 are based on Table 3.

The Production Function				
Labor (workers per day)	Output (kg per month)			
	Plant 1	Plant 2	Plant 3	Plant 4
0	0	0	0	0
1	4	10	23	35
2	10	25	56	65
3	13	55	96	131
4	15	95	146	237
5	16	120	206	277
Plowing machines (number)	1	2	3	4

Table 3

38. Table 3 shows the production function of a farm producing cabbages. If the owner wants to buy 2 plowing machines, how many workers should he hire?
- A. 1
 - B. 2
 - C. 3
 - D. 4
39. If the owner wants to buy 1 machine, at which labor does the firm starts experiencing diminishing marginal return to labor?
- A. 2
 - B. 3
 - C. 4
 - D. 5
40. If the owner wants to employ 3 workers, how many plant should the firm hire?
- A. Plant 1
 - B. Plant 2
 - C. Plant 3
 - D. Plant 4

[TOTAL: 40 MARKS]

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SECTION B: STRUCTURED QUESTIONS (60 MARKS)**Answer ALL questions. Answers should be written on the answer booklet provided.****QUESTION 1**

Define the circular flow diagram. Draw a complete circular flow diagram between firms and households. (10 marks)

(Total: 10 marks)

QUESTION 2

Supposed table below shows the production cost of a small firm producing good X from 2017 to 2021. Given that the firm must pay RM1000 for its small factory rental. The firm also must pay RM50 for each labour.

- (a) Calculate the firm's total variable cost, total cost, and marginal cost at every level of production. (15 marks)

Year	No. of Labor	Total Product	TVC	TC	MC
2017	6	100			
2018	7	113			
2019	8	123			
2020	9	131			
2021	10	136			

- (b) If the firm sells good X for RM5 each, which year does the firm achieve the optimum level of production? (11 marks)

Year	No. of Labor	Total Product	TR	MR
2017	6	100		
2018	7	113		
2019	8	123		
2020	9	131		
2021	10	136		

- (c) What is the type of this firm's market structure? List **THREE (3)** characteristics from this market. (4 marks)

(Total: 30 marks)

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QUESTION 3**Nintendo pauses Nintendo Switch shipments amid global shortage**

In 2016, Nintendo released its newest console, the Nintendo Switch. The console quickly became a sensation, with consumers eager to get their hands on the device.

However, in February of 2020, Nintendo announced it was dealing with production delays in China due to the ongoing pandemic. Even though Nintendo began to move part of its manufacturing to Vietnam in 2019, it still relies on China for supply. This led to shortages of the console in some regions, with prices of the Nintendo Switch and Switch Lite skyrocketing above their retail prices, despite the Switch being more than three years old.

Despite these challenges, Nintendo continued to meet the demand for the Switch and Switch Lite by increasing production in its other manufacturing facilities using enhanced technology. Additionally, the demand for the Nintendo Switch soared thanks to the surge in home gaming during Covid-19, with popular titles such as "Animal Crossing: New Horizons" driving sales.

Overall, the case of the Nintendo Switch shows the importance of balancing supply and demand in the face of supply chain disruptions. By finding the right balance between supply and demand, companies can ensure they are meeting the needs of their customers while maximizing their own profits, even in challenging times.

(Source: *Shannon Liao | CNN Business*)

- (a) When was the Nintendo Switch released and what is the reason behind the shortages of the console in some regions? (2 marks)
- (b) State **TWO (2)** factors from the case study that leads to high demand of the console. (2 marks)

... "in February of 2020, Nintendo announced it was dealing with production delays in China due to the ongoing pandemic." ... "the demand for the Nintendo Switch soared thanks to the surge in home gaming during Covid-19",...

- (c) Explain how the production delays and the Covid-19 pandemic influence the market for Nintendo Switch based on this case study. (*Your answer must be accompanied with appropriate graph*) (12 marks)
 - (d) Using the case study as an example, explain how technological innovations can affect the supply and equilibrium for a product. (4 marks)
- (Total: 20 marks)

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